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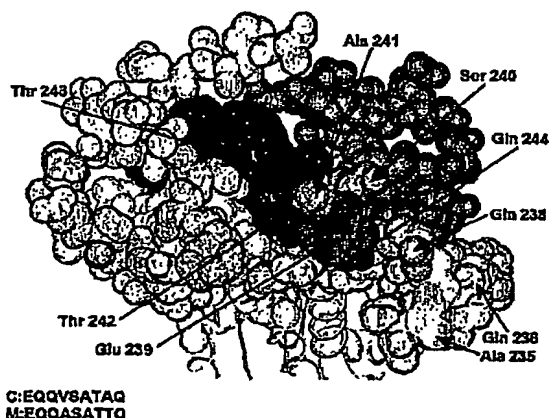
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**Declaration under Rule 4.17:**

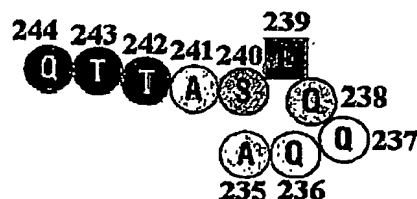
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[Continued on next page]

(54) Title: **MAPPING DISCONTINUOUS ANTIBODY OR APTAMER EPITOPES FOR PROTEIN STRUCTURE DETERMINATION AND OTHER APPLICATIONS**



**A**



Proposed hairpin  
conformation of  
the C3 loop residues  
235-240 in rhodopsin

**B**

(57) Abstract: The present invention is directed to methods of mapping antibody or aptamer epitopes for use in a variety of utilities including the elucidation of the tertiary structure of proteins. A method of the invention, antibody imprinting, uses antibodies or aptamers against target proteins and random peptide probe libraries to map the epitopes of antibody binding sites on target proteins.



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# INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 G01N33/68

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/64942 A (KUIMELIS ROBERT G ; LIPOVSEK DASA (US); PHYLOS INC (US); WAGNER RICHAR) 7 September 2001 (2001-09-07) abstract page 32, paragraph 2 page 34, last paragraph; claims 20,25	18,19
X	WO 02/46757 A (IMMUNOCLIN LAB LTD) 13 June 2002 (2002-06-13) abstract page 2, last paragraph page 6, paragraph 2 ----- -/--	18,19

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>INIGUEZ P ET AL: "SCREENING OF HORSE POLYCLONAL ANTIBODIES WITH A RANDOM PEPTIDE LIBRARY DISPLAYED ON PHAGE: IDENTIFICATION OF LIGANDS USED AS ANTIGENS IN AN ELISA TEST TO DETECT THE PRESENCE OF ANTIBODIES TO EQUINE ARTERITIS VIRUS" JOURNAL OF VIROLOGICAL METHODS, AMSTERDAM, NL, vol. 73, no. 2, 1998, pages 175-183, XP001024660 ISSN: 0166-0934 abstract table 2 page 179, left-hand column, paragraph 2</p>	18,19
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X	<p>LINDBERG ET AL: "Characterization of a human protein threonine kinase isolated by screening an expression library with antibodies to phosphotyrosine" ONCOGENE, BASINGSTOKE, HANTS, GB, vol. 8, no. 2, February 1993 (1993-02), pages 351-359, XP002109460 ISSN: 0950-9232 abstract; figure 6</p>	18,19

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